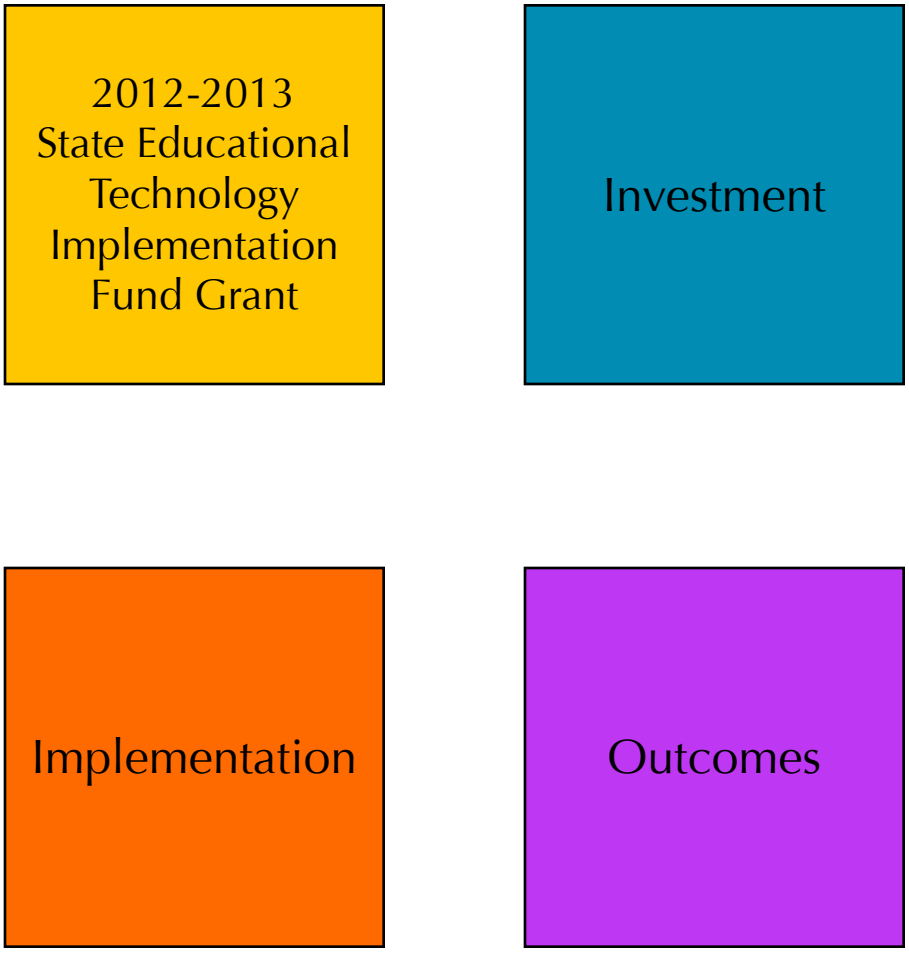

Interim Report

August 2012

Prepared by Wexford, Inc.

First Year Evaluation of the 2012-13 State Educational Technology Implementation Fund Grant

Submitted to: **Nevada Department of Education and Nevada Commission on Educational Technology**

Submitted by: **Wexford, Inc.**

August 24, 2012

Wexford, Inc. is a non-profit education agency that conducts research and evaluation and provides strategic planning and professional development services to support PreK-20 initiatives. Wexford is experienced in the delivery of services to clients across the educational spectrum, from small schools to complex and diverse urban districts, regional agencies, state departments of education, colleges and universities, and the U.S. Department of Education.

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Executive Summary

The Nevada State Educational Technology Implementation Fund Grant, totaling over $3.5 million for Fiscal Years 2012-13, was awarded to 16 of the state's 17 school districts. Elko County received two grants, and Eureka County did not submit an application. The funding priorities for the grant included a focus on Common Core State Standards, Smarter Balanced Assessment, and/or Growth Model. To address these priorities, districts proposed to invest in school and district-wide infrastructure; replace outdated student and teacher computers in both classrooms and computer labs; create mobile computing labs and 1:1 netbook, tablet, iPod and iPad projects; build capacity for videoconferencing capabilities to relieve time and cost burdens associated with providing professional development to teachers in remote locations, as well as facilitate collaboration between cross-site professional learning communities; and develop online professional development courses and modules that will support teachers' understanding and implementation of the Common Core State Standards. Highlights from the Year 1 implementation of the State Educational Technology Implementation Fund Grant include the following:

- FY 12 funds had a reach to nearly 450 schools, over 3400 teachers, and 334,000 students across the state
- Through investments in infrastructure and other technology, districts increased their capacity to to conduct online assessments
- 27% of grant funds were used to purchase technology that went directly into the hands of students and teachers
- 9 districts provided nearly 100 hours of grant and district-funded professional development to 1153 teachers across 70 training sessions
- 94% of teachers who responded to a project feedback survey indicated that attending technology-related professional development was a good use of their time; 90% who attended CCSS-related professional development felt that attending the training was a good use of their time
- Clark County School District developed 21 online professional development modules focused on elementary and secondary CCSS math standards; beginning in September 2012 these modules will be available to teachers across the state

During the Year 1 implementation of the grant, evaluators noticed a trend that is worth noting. Barring three districts that proposed to begin implementing their projects during summer 2012, evaluators found that on average, there was a 15 week gap between the date that districts ordered equipment and the date they first began deploying the equipment to schools. Given this trend, particularly in light of the fact that most districts waited until January 2012 to request their first draw down of Year 1 funds, many districts did not begin deploying equipment to schools until April or May 2012. For various reasons (seen and unforeseen) including a later than usual grant application process, sending orders out for bid, hiring delays, vendor-related fulfillment issues, district Board of Trustees' approval processes, limited staff resources to deploy equipment, and requisite infrastructure diagnostics prior to deploying equipment, most districts did not fully implement their projects as planned during the 2011-12 school year. As discussed further in the report, this has implications for evaluating the outcomes of a two-year grant that, in practice, is essentially a one to one and a half year grant.

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State Educational Technology Implementation Fund Grant

The 2012-13 funding cycle for the Nevada State Educational Technology Implementation Fund includes 17 grant awards to 16 of the state's school districts (Elko County received two grants, and Eureka County did not submit a grant proposal). Grantees submitted proposals describing how their district would utilize grant funds to address one or more primary funding priorities, including: (1) Common Core State Standards (CCSS); (2) Smarter Balanced Assessment Consortium; and (3) Growth Model. In response to this requirement, all 17 applicants indicated how the grant would support CCSS, eight districts wrote to the Smarter Balanced Assessment priority, and five districts wrote to the Growth Model priority.

The total amount awarded to districts was over $3.6M. Three of the funded distrticts (Esmeralda County, Lander County, and Elko County's eLearning for Educators project) received one-year grants; the other 14 grantees received two-year awards. While Clark County and Washoe County received the largest proportion of available grant funds (42% and 19%, respectively), four districts (Carson City, Douglas Elko County, and Lyon County) received grants over $200K each. This allocation accounts for another 23 percent of the SETIF Grant awards.

Districts took various approaches to utilizing the grant funds toward supporting the implementation of Nevada's Common Core State Standards. Specifically, funds were used to invest in:

- Upgrading infrastructure to help establish fast and stable computing environments as well as build capacity for online assessments;
- Developing professional development modules to increase teachers' understanding of the CCSS;
- Purchasing videoconferencing equipment to facilitate cross-district professional development around CCSS; and
- Computing and other technology devices including laptops, desktop computers, tablets, thin clients, iPods, iPads, and electronic whiteboards to enhance teaching and learning.

Outline of the Interim Report

The report is divided into five parts. Part One is an overview of the Year 1 data collection; Part Two provides a description of the number of schools, teachers, and students directly or indirectly affected by grant funds; Part Three of the report provides a summary of how the grant funds were invested across districts; Part Four is a summary of districts' project implementation during the 2011-12 school year; and Part Five is a summary of baseline data and district plans to measure and report project outcomes.

Part One: Data Collection

Data collection in Year 1 of the 2012-13 State Educational Technology Implementation Fund Grant consisted primarily of documenting project implementation and gathering available baseline data against which to measure outcomes in Year 2. The focus of the data collection was dictated by the grant timeline (i.e., CET reviewed proposals in October 2011 and districts drew down Year 1 funds in Dec. 2011 and Jan. 2012) and the date that Wexford was awarded the evaluation contract (Feb. 14, 2012). As outlined in Part Three: Implementation, many districts did not get their project activities far enough along during the 2011-12 school year to warrant surveying, interviewing, or conducting site visits with those affected by the grant. That being said, the reader will find that the data that were collected during Year 1 provide a comprehensive summary of districts' project activities, impact on students and teachers, and plans to document overall outcomes. The data include: project director interviews, teacher survey data, Year 1 summary documents reviewed by project directors, and baseline student achievement data (MAP data and A+Learning usage).

Project Director Interviews

In March 2012 Wexford evaluators used a standardized interview protocol to conduct telephone interviews with all 17 project directors. The focus of the interviews was to gather data on the status of project implementation, document barriers to implementation, gather an accounting of grant expenditures to-date, document the number of schools, teachers, and students on which the grant had an impact, document districts' grant and district-funded professional development plans related to the project, and gather information on the current state of districts' preparation for implementing the CCSS. Each interview lasted between 60 to 90 minutes. In some cases where a Project Director was unable to answer certain questions, in particular those related to CCSS, evaluators were put in contact either by phone or email with someone in the district who could address those questions. Wexford conducted a second round of telephone interviews in May 2012 to gather updated information on project implementation. These interviews lasted between 30 to 60 minutes.

Teacher Surveys

Technology Skills and Awareness Survey

Three districts (Lincoln County, Lyon County, and White Pine County) responded to an offer by Wexford evaluators to administer a *Technology Skills and Awareness* survey. The survey was administered online, via SurveyMonkey, in April 2012. A total of 81 teachers, administrators,

and/or school staff completed the survey; 35 from Lincoln County and 23 each from Lyon County and White Pine County. Upon completion of the survey, evaluators shared the results with Project Directors via an email that included a link to view the data online.

Nevada Ed Tech Grant Teacher Survey

In May 2012, Wexford administered an online survey, via SurveyMonkey, to teachers in eight districts. Only teachers in those districts that had progressed far enough along in their project implementation received a link to the survey. In general these were districts that had already deployed grant-funded equipment to teachers and/or students. The districts to which the survey was administered include: Churchill County, Humboldt County, Lincoln County, Lyon County, Pershing County, Storey County, Washoe County, and White Pine County. A total of 122 teachers responded to the survey.

District Implementation Plan Summary

Wexford evaluators developed a *Year 1 Implementation Plan Summary* document and administered it in July 2012 to the Project Directors in each district. Project Directors were instructed to review the content of the summary, verify the accuracy of the data that evaluators had collected, provide corrections or updates, and inform evaluators of any summer 2012 project activities as well as report on project implementation plans for fall 2012. All but three districts (Esmeralda County, Lander County, and Storey County) responded to this request. Data for these districts are included in the interim report, but they have not been through a final verification/update process with the respective Project Directors.

MAP Assessment Data

Five of the 16 school districts decided to use Northwest Evaluation Association (NWEA) Measure of Academic Progress (MAP) assessment data as an outcome measure associated with their SETIF grant. MAP assessments are computer-based adaptive and standards-aligned assessments that districts administer two to three times during the school year. MAP includes assessments for primary grades (K-2) in reading and mathematics; science assessments through grade 10; and reading, mathematics, and language usage assessments through grade 10. For the purposes of reporting outcome data for the SETIF Grant, Wexford will only report percent growth and percent proficient in reading and mathematics for the applicable grade levels.

All five districts will report Spring 2012 MAP data as their baseline measure and spring 2013 MAP data as their comparison measure. Wexford evaluators received 2012 MAP data for Humboldt County and Pershing County, which are reported in the Part Five: Outcomes section

of this report. The final summary report of the State Educational Technology Fund Grant will include baseline and comparison data for Humboldt County, Lyon County, Mineral County, Pershing County, and White Pine County.

Part Two: Participants

Students & Teachers

FY12 funds from the Educational Technology Implementation Fund Grant were used to reach over 400 schools, and nearly 3500 teachers and 335,000 students across Nevada. Grant funds had an impact on as few as one school in two districts to all schools in four of the districts. Tables 1 through 3, below, show the number of school, teachers, and students impacted by the grant funds either directly or indirectly. For the purposes of interpreting the data in the table, we define a "direct impact" as one in which technology hardware and/or software was put directly into the hands of teachers and students for classroom or computer lab use. Indirect impact refers to teachers and students benefitting from investments in school or district wide infrastructure (i.e., Clark County's investment in proxy servers or Douglas County's investment in wireless access points) or students benefitting instructionally as a result of their teachers participating in grant-funded professional development.

Table 1. Number of Schools, Teachers, and Students Impacted by Ed Tech Fund Grant in FY12[1]

District	Schools	Teachers	Students
Carson City	6	250	5,687
Clark County	370	2,213	309,749
Churchill	4	109	1,966
Douglas	11	351	6,336
Elko 1:1	9	25	630
Elko e4e	-	108	-
Esmeralda	3	6	66
Humboldt	4	80	1,291

[1] The total number of schools and students does not include Alternative or Charter schools. Also, the numbers for Elko's e4e project include only Elko County teachers; statewide, the project impacted 421 teachers.

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District	Schools	Teachers	Students
Lander	1	9	156
Lincoln County	7	39	329
Lyon	1	48	557
Mineral	3	32	412
Nye	7	151	2,605
Pershing	1	7	101
Storey	1	4	127
Washoe	12	39	3,092
White Pine	7	12	1,403
TOTAL	**447**	**3,481**	**334,507**

Wexford used each district's Nevada Accountability Report data to determine the percentage of schools within each district that were impacted by the SETIF Grant. As shown in Table 2 this percentage ranges from lows of six percent and 20 percent in Lyon County and Lander County, respectively, where grant funds were allocated to one school, to 100 percent of schools in Clark County, Douglas County, Esmeralda County, and White Pine County being affected by district-wide infrastructure investments or equipment purchases.

Table 2. District-wide Number and Percentage of Schools Impacted by Grant Funding[2]

District	Number of Participating Schools	Number as a Percentage of All Schools in the District
Carson City	6	60%
Clark County	370	100%
Churchill	4	57%
Douglas	11	100%
Elko 1:1	9	30%
Esmeralda	3	100%
Humboldt	4	31%
Lander	1	20%
Lincoln County	7	78%
Lyon	1	6%
Mineral	3	75%
Nye	7	39%
Pershing	1	25%
Storey	1	25%
Washoe	12	13%
White Pine	7	100%

Table 3 shows that districts implemented grant-funded projects that had a direct or indirect impact on as few as five percent of its students (Washoe County) to over three- fourths of their students (Carson City and Mineral County). Some districts, such as Lincoln County (34%) and Humboldt County (38%), saw a reach to over one-third of their students, while others, Churchill County (47%) and Nye County (44%) were able to reach nearly half of their students.

[2] Elko County's e4e project did not collect participating school data as the project was not grant-funded in FY12.

Table 3. Number and Percentage of Districts' Students Directly or Indirectly Impacted by SETIF Grant

District	Number of Students Impacted by Grant	Total as a Percentage of All Students in the District
Carson City	5,687	76%
Clark County	309,749	100%
Churchill	1,966	47%
Douglas	6,336	100%
Elko 1:1	630	7%
Esmeralda	66	100%
Humboldt	1,291	38%
Lander	156	14%
Lincoln County	329	34%
Lyon	557	7%
Mineral	412	80%
Nye	2,605	44%
Pershing	101	15%
Storey	127	30%
Washoe	3,092	5%
White Pine	1,403	100%

Part Three: Investment

Grant Award by District and Funding Priorities

As stated in the introduction to this report, all of the districts were required to apply grant funds toward implementing the Common Core State Standards (CCSS). To that end, Nevada's Commission on Educational Technology (CET) funded proposals that included plans to upgrade school or district infrastructure, replace or buy student and teacher computers (both laptops and desktops as well as mobile, classroom, and computer lab configurations), develop professional development modules, and fund a part-time computer technician position. Three districts were awarded grants between $20K and $30K, seven districts were awarded grants between $50K and $100K, four districts were awarded grants over $200K, and Washoe and Clark County were awarded $688,232 and $1,537,711, respectively. The final awards to each district ranged from 11 percent to 100 percent of the amount requested in their respective proposals. Table 4 and Table 5, on the following page, show a summary of grant funds by district allocation and the corresponding funding priorities.

Evaluators chose to highlight the percentage of each district's final award compared to the amount requested in their proposal in order to frame the context within which districts implemented their projects. In interviewing Project Directors, evaluators found that the final award had implications for project implementation ranging from the need to adjust budget priorities either by scaling back or abandoning proposed activities to applying a significant amount of district funds to continue with the full implementation of all proposed priorities. For some districts, the final grant award affected their timeline for project implementation to varying degrees. Elko County, in particular, spent much of the 2011-12 school year awaiting Board approval to supplement the grant award with district funds. The district did not receive Board approval to process its iPad purchase until April 2012; this resulted in, essentially, a loss of one year of the two year grant within which to implement its 1:1 project. Further along in this section of the report the reader will find a more comprehensive summary of how districts' final allocation affected their budget priorities.

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Table 4. District Total Grant Awards and Allocation by Fiscal Year

District	Amount Requested	Final Award	Final Award as % of Amount Requested	FY 12 Amount	FY 13 Amount
Carson City	$412,918	$206,459	50%	$23,346	$183,114
Clark County	$2,309,029	$1,537,711	67%	$812,736	$724,975
Churchill	$77,000	$77,000	100%	$46,200	$30,800
Douglas	$381,755	$212,819	56%	$55,097	$157,721
Elko 1:1	$1,987,251	$209,631	11%	$104,816	$104,816
Elko e4e	$64,995	$64,995	100%	$0	$64,995
Esmeralda	$22,760	$22,760	100%	$22,760	$0
Humboldt	$149,615	$74,808	50%	$35,218	$35,590
Lander	$29,680	$21,749	73%	$21,749	$0
Lincoln	$29,804	$25,741	86%	$13,103	$12,638
Lyon	$534,456	$225,618	42%	$112,809	$112,809
Mineral	$127,973	$95,930	75%	$72,690	$23,240
Nye	$83,520	$58,632	70%	$31,693	$26,939
Pershing	$69,835	$50,250	72%	$25,125	$25,125
Storey	$28,854	$28,854	100%	$25,754	$3,100
Washoe	$1,061,997	$688,232	65%	$389,798	$298,434
White Pine	$129,690	$73,293	57%	$36,647	$36,647

Evaluating What Gets Funded

In a white paper presented at the 1999 U.S. Department of Education Secretary's Conference on Educational Technology, Goldman, Cole, and Syer (1999) stated that, "Educational technology is not, and never will be, transformative on its own. But when decisions are made strategically with these factors in mind, technology can play a critical role in creating new circumstances and opportunities for learning that can be rich and exciting." Thirteen years later, in 2012, a search

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27% The percentage of grant funds that were used to purchase information technology items of value that went directly into the hands of teachers and students

of the What Works Clearinghouse reveals a dearth of research studies that make a direct link between educational technology and student outcomes as measured by standardized assessments, and those that do show positive outcomes are based on a certain number of hours that students spend utilizing reading and math-focused computer assisted instructional software. Advocates of educational technology, from policymakers to parents, know anecdotally the difference it makes in students' lives (at school and at home) when they have access to technology. And many quantitatively measured outcomes can be linked to investments in educational technology (i.e., decreases in behavior problems, increased attendance, increased student engagement); however, links between overhauling a school's computer labs and increases in students' scores on standards-based assessments, are tenuous at best. Table 5 shows a summary of what the SETIF Grant funded, and it is within this context that Wexford advises the reader to consider the challenge of linking educational technology investments to student achievement outcomes.

Table 5. FY12 Acquisitions/Expenditures by Budget Categories

District	Acquisition/Expenditure	Budget Category
Carson City	• Desktop computers for school labs	• Technology Items of Value
Clark County	• Facilitators to develop online professional development modules • Proxy servers • Tuition reimbursement and "seat fees" to Vegas PBS for TeacherLine PD	• Salaries/Benefits • Professional Services • Equipment over $5K • General Supplies • Technology Items of Value
Churchill	• Thin clients	• Technology Items of Value
Douglas	• Wireless Access Points	• Technology Items of Value • Technology Supplies
Elko 1:1	• iPads for English and Math teachers in Elementary, MS, and HS	• Technology Items of Value • Software • Professional Services

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District	Acquisition/Expenditure	Budget Category
Esmeralda	• District Network Communications System Upgrade	• Technology Items of Value
Humboldt	• Laptop computers	• Technology Items of Value
Lander	• Network switch • Desktop Computers	• Technology Items of Value
Lincoln	• Computer Technician • LanSchool software	• Salaries/Benefits • Technology Supplies
Lyon	• 1:1 netbooks with laptop connect cards (software, web filtering, imaging)	• Other (Cellular Data Plan) • Technology Items of Value • Web based programs
Mineral	• Desktop computers for school labs	• Technology Items of Value • Technology Supplies
Nye	• SMART Boards w/ Installation • Webcams • Wireless Headset • Laptop	• Technology Items of Value • Technology Supplies
Pershing	• iPod Touch • Sync Cart • Vouchers for Apps	• Technology Items of Value • Professional Services
Storey	• Kunos Android Tablets, software, and 1-day training	• Technology Items of Value • Software • Professional Service
Washoe	• 10-pack iPad sets • Polycom videoconferencing • Training Stipends	• Technology Items of Value • Technology Supplies • Equipment over $5K
White Pine	• Teacher/Staff laptops • Projectors • Mimio Interactive Whiteboards • Webcams	• Technology Supplies • Technology Items of Value

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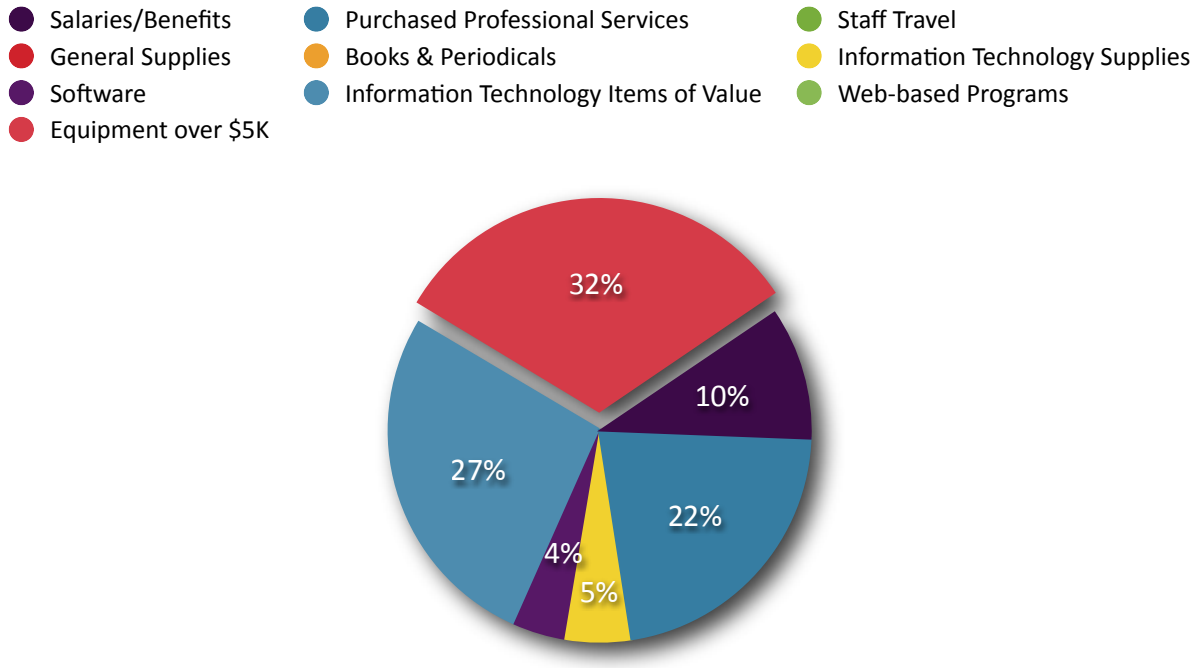
Figure 1, below, shows that the greatest percentage of FY12 grant funds (32%) were allocated toward the purchase of equipment over $5000 per unit. This includes the Polycom videoconferencing equipment purchased by Washoe County School District and the proxy servers purchased by Clark County School District. The next largest FY12 expenditure was on Information Technology Items of Value (27%). This includes the laptop, desktop, tablet computers, iPods, iPads, and interactive whiteboards purchased by 11 of the 16 districts, as well as the wireless access points, network switches, and other system upgrade equipment purchased by three of the 16 districts. The third largest expenditure (22%) was for Purchased Professional Services, which includes payment for third-party contracts to install purchased equipment, other third-party service agreements (i.e., imaging computers, network diagnostics), professional development services, and teacher stipends. Information Technology Supplies and Software made up five percent and four percent, respectively, of total Y1 expenditures. Other budget categories, accounting for less than one percent each of Y1 expenditures included salaries and benefits, general supplies, books and periodicals, staff travel, and web-based programs.

Figure 1. Percentage of Grant Funds Allocated across Budget Categories



Budget Priorities

As reported in Table 4, on page 11, some districts received the full amount of grant funds requested in their proposal, while others received anywhere from 11% to 86% of their requested amount. For some districts this shortfall affected their budget priorities, requiring them to scale back or postpone proposed activities. When evaluators interviewed project directors in March 2012, 11 of the 17 indicated that their budget priorities were affected by their final award. A summary of how districts adjusted their project priorities is shown in Table 6, below.

Table 6. District Budget Priorities Affected by Final Grant Award

District	Budget Priorities
Carson City	Replaced computers in seven (7) labs instead of the proposed 14
Clark County	Hired 3 facilitators to develop online modules instead of the proposed 6; also did not have the funds to purchase PD360 professional development package for schools
Douglas	Will decrease the number of student laptops purchased in FY13
Elko 1:1	Budget priorities remained the same, but supplemented by district funds
Humboldt	Not able to purchase Windows 7 software or computer mice
Lyon	Unable to fund network administrator positions; requested district funds for one FTE
Mineral	Purchased fewer computers for teachers and school labs
Nye	Purchased seven (7) SMART Boards instead of 13 as requested in proposal
Pershing	Requested district funds to address budget priorities not funded with grant (i.e., tape back up system and network switches)
Washoe	Purchased videoconferencing equipment for 12 instead of 21 schools
White Pine	Budget priorities remained the same, but district able to buy more computers because actual cost was significantly less than cost submitted in proposal

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District Funds

Nearly all of the districts (13) provided supplemental funding to support the implementation of the SETIF projects. Some districts (Clark County, Douglas County, Esmeralda County, Pershing County, Storey County) supplemented the infrastructure needed to support the grant-funded technology, other districts, such as Carson City and Nye County allocated funds to complete their proposed equipment order. With funds totaling over $500, 000, Elko County School District made the greatest district-funded contribution to complete its project plans at the scale originally proposed. Specifically, the district's Board of Trustees approved $538,388 in supplemental funding that allowed for the purchase of 25 teacher iPads, 720 student iPads, 24 sync carts, and 24 Macbook computers. The district's $104,000 Year 1 grant award covered the cost of 181 of the total iPads purchased.

Table 7. District Funds Used to Support Project Implementation

District	
Carson City	District used General Funds and "pay as you go" money to upgrade all 14 lab replacements written into the proposal
Clark County	District covered the cost of courseware tool for module delivery as well as costs for maintenance and creating user accounts
Churchill	District funds were used to purchase the servers for the thin clients funded by the grant
Douglas	District contributed $1000 to cover cable costs; contributed in-kind personnel labor used to survey school buildings and install cabling and WAPs (wireless access points)
Elko 1:1	District Board of Trustees approved $538,388 in funding to cover the budget shortfall in the grant award
Esmeralda	District utilized eRate funds to purchase T1 lines to increase bandwidth
Humboldt	District funds were used to purchase laptop carts and WAPs
Lander	District funds were used to make up the $7900 difference between the requested amount and final award

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District	
Lincoln	District provides a car for the computer technician to travel between school sites; district provided $25K toward the purchase of netbooks to expand 1:1 project across 5th-12th grade
Lyon	Requested district funds for one FTE network administrator
Nye	District funded six (6) additional SMART Boards and covered the cost of Adobe Connect to test bandwidth for videoconferencing
Pershing	District funds were used to address budget priorities not funded with grant (i.e., tape back up system and network switches)
Storey	District funds were used to address bandwidth issues affecting the use of the Kunos devices and to purchase SPAM/Web filtering software to support use of the devices

Part Four: Implementation

Timeline for Deploying Infrastructure and Equipment

Many of the districts used SETIF grant funds to purchase equipment (i.e., information technology devices and/or network equipment). Some districts such as Carson City, Douglas County, and Esmeralda County planned their roll out for summer 2012, but for those districts intending to roll out their project during the 2011-12 school year, it took an average of 15 weeks from the order date to actually begin deployment to schools. Elko County's 1:1 project is an outlier because the district did not get Board approval for supplemental funds to implement the iPad project until April 30. Utilizing the *Year 1 Implementation Summary* document, evaluators requested that project directors provide the date they ordered any grant-funded equipment, the date it was received, the date they began deploying the equipment to schools, and the date they completed the deployment. Data indicate that most districts ordered their equipment in December 2011 and January 2012 and that receipt of equipment typically took between two weeks and a month from the date ordered. Eight of the districts reported that they did not begin deployment until May 2012 or later, with three of the eight planning to begin deployment in August 2012. Reasons for this timeline were varied and included: purposefully choosing to suspend deployment until spring break or during the summer, time needed to image computing devices, limited human resources to deploy the equipment, reliance on external contractors for deployment, going through the process of sending orders out for bid, and needing to address infrastructure issues before deploying equipment.

> On average, there was a 15 week gap between the time districts ordered equipment and the time they began deploying equipment to schools

The Fiscal Year 12 implementation of the Grant was also affected by a later than usual RFA announcement, application deadline, proposal review, and initial date on which districts could first draw down funds. This timeline was prompted by uncertainty about whether the state legislature was going to fund the grant for FY12-13. For the 2012-13 funding cycle, the Request for Applications was posted on the Nevada Department of Education website on August 23, 2011. Applications were due on October 5, 2011, and reviewed by the Commission on Educational Technology on November 2-3, 2011. First year funds were available for draw down on December 1, 2011; however, many districts waited until after the winter break to do so. Given this calendar, districts had approximately 23 weeks within which to implement their project before the end of the 2011-12 school year. As the reader considers that for most

districts, project roll out took, on average, up to 15 of those 23 weeks (or 65 percent of the available implementation time for the school year), it should be apparent that this practice has implications for measuring the impact of a two-year grant when many districts are, in effect, realizing just one full school year of implementation. When a grant spans two school years but is only fully implemented in one year, it poses challenges to the evaluation; the most obvious being the extent to which a one-year outcome evaluation can truly capture the impact of a project, both qualitatively and quantitatively, on teachers and students. As it relates specifically to the 2012-13 SETIF Grant, teachers and students had so little time with the grant-funded technology during the 2011-12 school year that evaluators and project directors determined that Year 1 site visits were not warranted and only eight of the 16 projects considered it worthwhile to administer a year-end project feedback survey to teachers.

Teacher Professional Development

While the information regarding the timeline in which districts implemented their projects in Year 1 deserves serious consideration, Year 1 implementation data are promising in regard to teacher professional development. Excluding Elko County's eLearning for Educators project that is funded only for FY13[3], nine of the 16 districts provided grant and/or district funded professional development during Year 1 of the SETIF Grant. The combined professional development activities for Year 1 include nearly 100 hours of training (n=98.5 hrs) for 1153 teachers, across 70 sessions. The professional development included self-paced online courses, vendor-provided training, and district provided training on specific hardware and software tools.

Table 8. Project-Related Teacher Professional Development

District	# of Sessions	# of Hours	# of Teachers	PD Focus
Clark County	59 Reading Classes 16 Math Classes	self-paced 6 week online courses	78	Teachers reimbursed for CCSS-related VegasPBS TeacherLine courses

[3] Data for Elko County's eLearning for Educators project are included in this table as a baseline measure for its professional development project funded in FY13.

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District	**# of Sessions**	**# of Hours**	**# of Teachers**	**PD Focus**
Elko 1:1	4	18	36	2 two-day iPad sessions, each with 5 modules totaling 9 hours of training
Elko e4e	24	6 week courses that require 2-5 hours per/wk of work	421	
Humboldt	4	8	8	Train-the-trainer model where 2 teachers from each school received 2 hours of training from and then provided training to rest of school staff
Lincoln County	5	12.5	22	LanSchool training
Nye	1	1	6	Pilot multi-site connection via Skype
Pershing	1	6	5	Online Apple PD
Storey	1	8	4	Vendor-provided training on Kunos tablet and CurriculumLoft software
Washoe	30	45	573	

District Implementation

The summaries below are intended to highlight Year 1 implementation data from each district. In particular, the summaries include reporting of FY12 expenditures, the timeline in which grant activities occurred, and if known, the district's implementation plans for fall 2012.

IMPLEMENTATION

Carson City

Carson City School District's $206,000 grant was awarded as $23,000 in FY12 and $183,000 in FY13. The Project Director used FY12 funds to purchase 29 workstations in May 2012 and used FY13 funds to complete the computer and software order in July 2012. The district began deployment of the workstations in June 2012 and completed the installation of computers on August 10, 2012. Utilizing the full amount of its grant award, Carson City School District was able to purchase 248 computers that were deployed to seven computer labs in six schools (three elementary schools, two middle schools, and one high school). The purchase of these new workstations will impact 250 teachers and 5,780 students who will use the computers for general instruction and NWEA MAP testing.

Churchill County

Churchill County School District, which received a grant totaling $77,000 was one of the districts that received the full amount requested in its proposal. During the 2011-12 school year the district purchased and installed 120 thin clients with flat screen monitors at three elementary schools and Churchill County Junior High. Thin clients typically appear as a graphic display (i.e., monitor) with an input device (i.e., keyboard, mouse), and no input/output ports (i.e., CD-ROM drive, USB ports); they connect to a network server on which available software resides. The school district began its deployment of the thin clients in April 2012 and completed the installation on August 1, 2012. In spring 2013, the district will continue the installation of teachers' thin clients, purchased with FY13 funds. Churchill County's grant will impact 109 teachers and 1966 students.

IMPLEMENTATION

Clark County

Clark County School District invested approximately $400,000 in three proxy servers and one "cold" standby proxy server (and associated customer support services), which had in impact on the entire district. The servers afford the district the requisite capacity to provide high speed delivery of video resources, interactive content, and other online resources embedded in the district's Bringing Learning and Standards Together (BLAST) project. To launch the BLAST project, the district hired three facilitators to develop online modules that support teachers' understanding of CCSS in mathematics. During Year 1, the facilitators developed eight modules for K-5 math, one module for K-8 math, and 12 modules linked to specific mathematics standards. All 21 modules were completed by August 14, 2012 and will be linked to the district's Curriculum Engine by September 1, 2012. Grant funds also supported the BLAST project with the purchase of media storage drives and a repository for videos that are embedded in the modules. The number of modules produced is lower than originally proposed because the district's final award allowed for the hiring of only three facilitators rather than the six that were requested in the proposal. Mathematics module development will continue in Year 2, but the district will not have sufficient resources to develop the proposed English or science modules. CCSD also used grant funds to pay VegasPBS "seat fees" required for teachers to take TeacherLine online professional development courses, and reimburse teachers' tuition for the courses. By the end of June 2012, the district had reimbursed 78 teachers who had taken 59 Reading and 16 math courses. While Vegas PBS reported course completions by 147 teachers, the Project Director reimbursed only those teachers who had completed courses related to core content areas. These 78 teaches also fulfilled an additional requirement for reimbursement; submission of a CCSS-related lesson to the district's Wiki-Teacher site. This requirement is verified and signed off by a VegasPBS staff person prior to the reimbursement roster being submitted to the Project Director.

Douglas County

Douglas County School District received a $212,819 grant and voluntarily accepted just $55,097 in FY12. With its Year 1 funds, the district purchased all of the equipment it needed for mapping access points for its 11 schools. The analysis began in April 2012 and was completed by July 1, 2012. The district began installing the cabling for the WAPs and installing WAPs in August 2012. Installation will be ongoing throughout the 2012-13 school year, with the bulk of the WAPs being purchased with FY13 funds. The district formulated its bid request for network switches during summer 2012 and will put the order out for bid by October 1, 2012. Douglas County's grant has a district-wide impact on 351 teachers and 6336 students.

IMPLEMENTATION

Elko County: 1:1 iPad

The implementation timeline for Year 1 of Elko County's 1:1 iPad initiative was significantly affected by the decrease in its final award compared to the funding requested in its SETIF grant proposal. Intent on purchasing iPads for a pilot project involving 9 schools and 24 teachers (10 math and 14 English) , the district submitted a request to its Board of Trustees to fund the balance of the initiative not funded by the grant. In April 2012, the Board approved this request and Elko County submitted purchase orders for teacher and student iPads, Sync carts, and MacBook Air laptops. SETIF Grant funds covered the cost of 181 iPads at a cost of $579 per unit. During summer 2012, teachers attended Apple Professional Development training and iPads and carts were delivered and set up in the classrooms. The nine schools that received iPads include one elementary, three middle schools, and five high schools.

Elko County: eLearning for Educators (e4e)

While Elko County School District's eLearning for Educators (e4e) project was funded only for FY13, evaluators gathered some 2011-12 school year baseline data against which to measure the 2012-13 implementation. During FY12, e4e developed three online professional development courses, and offered a total of 18 6-week courses between October 2011 and June 2012. Over 400 teachers across the state, representing all districts except Esmeralda County, took the online courses that included topics such as: *Differentiating Instruction to Accommodate Learning Styles*, *Teaching and Learning with Web 2.0 Tools*, and *Data Driven Decision Making*. Three CCSS-focused classes were developed in 2011 and will be offered in fall 2012. The facilitators who will participate in the e4e training program to learn how to develop online courses have been selected and two new courses will be developed in FY13.

Esmeralda County

Esmeralda County School District contracted with a team of computer engineers to install the grant-funded equipment required to upgrade its network communication system. In March 2012 the Project Director reported that the equipment had been ordered and received and that the engineers would complete installation in April 2012. The network upgrade is an infrastructure investment that impacts the entire district of three schools, six teachers, and 66 students. To compliment the network upgrade, the district planned to install T1 lines at each of its schools to increase bandwidth.

IMPLEMENTATION

Humboldt County

During the 2011-12 school year, Humboldt County School District purchased and deployed 105 laptop computers to three elementary schools and one middle school. The laptops that each school received were configured as "mini mobile labs" of 10 laptops per cart, with the funding for the carts and dedicated wireless access supplemented by the district. The deployment of the mobile mini labs was completed on January 20, 2012 and was followed by a train-the-trainer model of professional development where two teachers from each school received eight hours of basic tech support training and then functioned in a site-based tech support capacity for the other teachers at their school. Every teacher also received two hours of training on A+ Learning, an online instructional courseware product. Humboldt County's grant has an impact on 80 teachers and 1291 students.

Lander County

Lander County School District used its grant funds to replace 28 computers in one junior high school and purchased and installed a switch to connect the computers to the district network. This computer lab upgrade has an impact on nine teachers and 156 students.

Lincoln County

To support expanded implementation of its 1:1 netbook project, Lincoln County School District used SEITF Grant funds to hire a part-time computer technician and purchase a site license for LanSchool software, which allows teachers to remotely manage students' netbooks. The part-time technician was hired in February 2012 after a search to replace the first hire that did not work out. The position was filled by a teacher who had been integral in implementing the 1:1 program, which allowed the district to quickly make up for time lost from the initial hiring process. Between February and May 2012, the computer technician provided 317 hours of support for which he was paid, and an additional 40 hours of in-kind tech support (imaging new computers and repairing existing computers during summer 2012). The district also provided 12 hours (four 3-hour sessions) of LanSchool training for teachers. The district's grant-funded project has an impact on 39 teachers and 329 students at seven schools within the district.

IMPLEMENTATION

Lyon County

Lyon County School District used its grant funds to launch a 1:1 netbook project at one of its intermediate schools. Through a contract with AT&T for monthly 5G laptop connect service, the district was able to purchase 600 netbook computers at a cost of $39.95 per unit. Student and teacher netbooks were ordered in February 2012, but not received until June 2012 because AT&T had difficulty acquiring the devices due to supplier demand. The district began deploying the netbooks on August 14, 2012 and completed the set up on August 17, 2012. Prior to entering contract negotiations with AT&T, the district had to complete the 470 bid process to secure eRate funds. This took place during fall 2012; the district also identified the software to be installed on the laptops and set up test computers in preparation for imaging during this time. In preparation for its launch of the 1:1 project during the 2012-13 school year, the district sent 6 teachers to the International Society for Technology in Education (ISTE) conference in June 2012 and also provided a 4 hour training session on August 15, 2012 for all 50 teachers at Fernley Intermediate School.

Mineral County

Mineral County School District used its grant funds to replace 14 teacher/staff computers and 71 computer lab workstations for three of its schools (one elementary, one K-8, and its combined JH/HS). Ethernet switches were also purchased for the elementary school. Installation of new computers at the elementary school and the JH/HS is complete; with plans to complete the install at the K-8 school by the end of August 2012. The slow roll out was prompted by the district needing to replace its IT support staff. A new computer engineer was hired in January 2012, and the district is in the process of hiring a new computer technician pending his background check. While some teacher desktop computers were replaced the computer lab investment has an impact on 32 teachers and 412 students.

Nye County

Nye County School District purchased and installed equipment needed to establish a professional development classroom at seven schools (six elementary and one middle school). In preparation for the SMART Boards to be used by instructional specialists, tests were run to evaluate bandwidth and multi-site connections. Tests of the Adobe Connect software that will be used in Year 2 proved successful and the district is not anticipating any problems remotely connecting its Northern and Southern District Offices with schools to provide regularly scheduled CCSS-focused professional development.

IMPLEMENTATION

Pershing County

Pershing County School District expanded the use of iPods in its elementary school with the purchase of 52 iPods, sync carts, and over $1200 in vouchers to purchase Apps. First grade teachers who already had at least 5 iPods in their classroom prior to the grant expanded their instructional use of the devices and also led "show and tell" training for 2nd grade teachers who were still in the exploratory stage of iPod use. Teachers participated in a one-day Apple-provided training session as well as online Apple professional development. Installation and syncing of Apps onto the devices was completed in March 2012. During Year 1, first grade teachers set up centers and used the iPods throughout the day; second grade teachers, tended to use them mostly as incentives at the end of the day. The grant impacts seven teachers and 101 students.

Storey County

Storey County School District purchased 25 Kunos android devices along with the associated Curriculum Loft cloud-based software. Originally slated for use by two middle school teachers, the devices were made available to a very "enthusiastic" 5th grade teacher. The set of devices is also shared among 2 language arts and one computer teacher. The district experienced delays in dispersing the equipment because of bandwidth and firewall issues, but despite the delays, students were able to use the devices to prepare for the state writing assessment. The grant impacts 4 teachers and 127 students.

Washoe County

Washoe County School District requested grant funds to support three initiatives: expansion of its Activeboard training program, launch of an iPad pilot project in high school English classes, development of a Point-to-Point videoconferencing system to facilitate training broadcasts to professional learning communities across the district. To that end, during the 2011-12 school year, the district provided 30 1.5 hour electronic whiteboard training classes to 573 teachers, purchased and deployed iPads to 5 teachers and 441 students at two middle school and two high schools. Point-to-Point videoconferencing capability is being rolled out to eight schools during August 2012. District professional development staff including Implementation Specialists, Cooperating Teachers, Staff D Development Cadre of Trainers, Curriculum & Instruct staff, and RPDP staff will attend a training session on August 27, 2012. The Point-to-Point component of the district's grant has an impact on 213 teachers and 3944 students.

IMPLEMENTATION

White Pine County

White Pine County School District purchased Mimio electronic whiteboards, webcams, and projectors for six schools to facilitate virtual professional development via Skype. The district also replaced 13 teacher/staff laptop computers. Equipment was deployed to five schools by February 2012, with the two most remote schools receiving their equipment in April 2012. Assignment of laptops to specific teachers and electronic whiteboards to specific classrooms occurred during summer 2012, in preparation for the 2012-13 school year. During Year 2 of the grant teachers will use the Mimio system to "attend," via Skype, a six-session Web 2.0 Tools in the Classroom class facilitated by the Northeastern Nevada Regional Professional Development Program (RPDP). The district also intends for grade level teachers to use the Mimio (and Skype) to collaborate regularly on CCSS. The district's Year 1 Mimio system and laptop replacement project will impact 12 teachers and 1403 students.

Part Five: Outcomes

Linking Grants to Implementation of Common Core State Standards

In varying degrees, each of the funded projects for the 2012-13 State Educational Technology Fund Grant, is linked to the districts' implementation of Common Core State Standards. In developing modules that will be available to teachers throughout the state, Clark County School District's Bringing Learning and Standards Together (BLAST) project makes the most direct connection between grant funds and CCSS. The other obvious, though less direct, connections between SEITF Grant funds and implementation of CCSS are found in districts that increased their capacity to conduct online assessments, either through replacing outdated computers, expanding or upgrading wireless connectivity, and improving network capability. Churchill County used the grant-funded thin clients installed in three of its schools' computer labs to administer online writing assessments, and the three districts that invested in videoconferencing equipment (Nye County, Washoe County, and White Pine County) intend to conduct cross site professional development related to the CCSS. Table 9 provides an overview of how each district intends to link its grant to the implementation of CCSS.

Table 9. Districts' Project Activities Linked to Implementing CCSS

District	Implementation Linked to CCSS
Carson City	The district will use the new computers in the school labs to work with students on the writing portion of the English Language Arts CCSS. This includes building in more time for students to practice their keyboarding skills. The district is also moving away from paper-based assessments and doing mock online assessments with teachers.
Churchill County	Prior to installing the thin clients, Churchill County did not have the computing capacity to support successful completion of MAP testing, writing assessments, and AYP testing. During Year 1 of the grant, students in Kindergarten through 8th grade used the grant-funded thin clients to take MAP assessments in April and May 2012. Eighth grade students will use the thin clients to take the online writing assessment in 2013.
Clark County	The BLAST project is designed to provide just-in-time online professional development to facilitate teachers' understanding of the CCSS in mathematics.

OUTCOMES

District	Implementation Linked to CCSS
Douglas	The district's infrastructure investment affords teachers and students the ability to access instructional resources that address the CCSS.
Elko 1:1	The district will fund Apple-provided professional development for participating teachers that focuses on the use of the iPads to facilitate project-based learning in math and English Language Arts.
Elko e4e	The online courses developed as part of the eLearning for Educators project will focus on CCSS.
Esmeralda	The communications upgrade will facilitate teacher professional development and increase the capacity for the district's students to participate in online assessment.
Humboldt	The mobile mini labs and access points increase the schools' capacity for online assessments. Prior to outfitting schools with this new configuration, one 30-laptop cart was shared among schools for the purposes of implementing MAP testing. The computers will also be used instructionally to support students' use of A+ Learning.
Lander	The district will use new computers to facilitate student remediation in mathematics.
Lincoln	In hiring a part-time computer technician to support its 1:1 netbook project in grades 5-12, the district has relieved the Technology Integration Specialists from this responsibility; they are now able to exclusively provide instructional support to teachers.
Lyon	The 1:1 netbook project allows students to use tools such as Ticket to Read, Criterion Writing, Study Island, and Accelerated Reading/Math at school and home to facilitate remediation in preparation for state assessments.
Mineral	The purchase of new computers improves students' and teachers' capability to utilize software and Internet resources that support the CCSS and increase the district's capacity to implement online assessments.
Nye	CCSS will be the primary focus of the professional development facilitated by Adobe Connect during the 2012-13 school year.
Pershing	Using the grant to create classroom sets of iPods allows the district to use the iRead program to address English Language Arts standards.

OUTCOMES	
District	**Implementation Linked to CCSS**
Storey	The Curriculum Loft software that is used on the Kunos devices includes a digital copy of the CCSS, which will facilitate teachers' use of technology and other resources that are matched to the standards.
Washoe	The Point-to-Point videoconferencing will support CCSS-related professional development across the district. This has particular impact on teachers in remote areas whose previous access to face-to-face PD was limited. iPads will be used for digital storytelling in high school English classes.
White Pine	The Mimio System will be used to facilitate CCSS-focused teacher professional development that includes RPDP trainers' use of Skype to train teachers on how to use technology and Web 2.0 tools in the classroom and also teachers' use of Skype to facilitate cross-site, grade level collaboration on CCSS.

Baseline Teacher Data

Technology Skills and Awareness

Following the interviews conducted in March 2012, Project Directors in Lincoln County, Lyon County, and White Pine County requested that Wexford administer its *Technology Skills and Awareness* survey to teachers. Wexford administered the surveys online, via SurveyMonkey, in April 2012 and received responses from 81 teachers across the three districts (35 from Lincoln County, and 23 each from Lyon County and White Pine County).

Teachers used a 4-point scale to indicate their interest in learning about various technology tools and resources. The majority of respondents indicated that they were "interested" or "very interested" in learning about student use of web-based tools to collaborate on assignments (82%), online test preparation resources (81%), and using Google Docs (80%). Over three-fourths of the respondents indicated an interest in learning more about integrating technology into the CCSS ELA curriculum (79%) and the CCSS math curriculum (76%). Teachers were least interested in learning about wikis (55%) and blogging (38%).

OUTCOMES

Table 10. Teachers' Interest in Learning about Various Technology Tools/Resources

	% Interested/ Very Interested	Response Count
Student use of web-based tools to collaborate on assignments.	82%	79
Online test prep resources	81%	77
Using Google Docs	80%	79
Developing online quizzes	79%	78
Integrating technology into CCSS ELA curriculum.	79%	73
Student Internet searching for assignments/projects.	76%	79
Planning, implementing, managing, and assessing student projects.	76%	78
Integrating technology into CCSS mathematics curriculum.	76%	72
Internet searching for content area resources.	71%	80
Developing a class website	68%	76
Using Moodle (or other LMS)	67%	76
Wikis	55%	75
Blogging	38%	78

In response to questions related to teachers' self-efficacy in using technology instructionally, respondents indicated a low to moderate level of agreement with statements. For example, on the scale ranging from 1= "strongly disagree" to 5= "strongly agree," teachers' average response to the statement, "I feel I have the necessary skills to teach with technology," was *M*=3.6. Teachers' average level of agreement with the statements, "I am confident in my ability to know when a students' technology project meets CCSS for English Language Arts" and "CCSS for mathematics" was *M*=2.7 and *M*=2.6, respectively.

OUTCOMES

Table 11. Teachers' Self-Efficacy Related to Using Technology Instructionally

	Rating Average	Response Count
I feel I have the necessary skills to teach with technology.	3.6	81
Most times I am able to answer students' questions about the technology we are using.	3.7	76
I feel comfortable sharing my technology-enhanced lessons with other teachers.	3.4	72
I feel that I am able to teach effectively with technology.	3.4	74
I find teaching with technology relatively easy.	3.4	75
I continually find better ways to teach with technology.	3.5	75
I feel comfortable using technology integration strategies that I have not used before.	3.3	77
I enjoy having my students work on technology projects.	3.6	74
I am good at integrating technology into the curriculum.	3.1	76
I am confident in my ability to know when a student's technology project meets CCSS for ELA.	2.7	66
I am confident in my ability to know when a student's technology project meets CCSS for mathematics.	2.6	68

Scale: 1=Strongly Disagree, 3=Neutral, 5=Strongly Agree

Most teachers tended to disagree or felt neutral in response to statements about solving their own technical problems (*M*=3.1), knowing about a lot of different technologies (*M*=3.1), and having sufficient opportunities to work with different technologies (*M*=2.9). Despite their self-reported limited access to new technologies, more teachers tended to agree that they easily learn new technology skills and strategies (*M*=3.7)

OUTCOMES

Table 12. Teachers' Agreement With Statements about Technology Use and Experiences

	Rating Average	Response Count
I know how to solve my own technical problems.	3.1	79
I easily learn new technology skills and strategies.	3.7	78
I keep up with the new technologies.	3.2	81
I know about a lot of different technologies.	3.1	81
I have sufficient opportunities to work with different technologies.	2.9	80

Scale: 1=Strongly Disagree, 3=Neutral, 5=Strongly Agree

Most teachers agreed or strongly agreed that teacher training should include educational uses of technology (*M*=4.5), technology is an important instructional tool (*M*=4.4), and teachers should learn about technology even if students' school and/or home access is limited (*M*=4.4). Teachers were less likely to agree with the statement, "I am satisfied with the current level of technology integration in my classes" (*M*=2.9).

Table 13. Teachers' Level of Agreement with Statements about the Use of Technology

	Rating Average	Response Count
Instruction can be improved through the use of technology in the classroom.	4.3	81
Technology can increase student motivation toward learning.	4.3	81
Teachers should learn about technology even if students' school and/or home access is limited.	4.4	81
Teacher training should include educational uses of technology.	4.5	81
Technology is an important instructional tool.	4.4	81
It is easier to differentiate instruction with technology.	3.9	80
I am satisfied with the current level of technology integration in my class(es).	2.5	77
Using technology to develop projects wastes valuable time that students can be using to master basic skills.	2.1	80

Scale: 1=Strongly Disagree, 3=Neutral, 5=Strongly Agree

OUTCOMES

Teachers used a 5-point scale, ranging from 1= "I can't do this," to 5= "I can teach others how to do this," to rate their basic technology skills. Over 80 percent of teachers reported that could create and print documents; open, edit, and save documents; and open and save email attachments "very well" or so well that they could teach others how to do these tasks. Fewer than two-thirds of the respondents felt that they could create a basic text-only slide presentation (64%), use a mounted or portable projector (60%), use a digital video camera (61%), create and maintain Internet bookmarks (61%) or download and save PDF files from the Internet (64%) very well or well enough to teach others. Less than half of the respondents reported that they could locate files saved on a shared network (43%), insert multimedia elements into a slide presentation (49%), use software or web-based tools to create graphic organizers (35%), or use digital video to create a movie (34%).

Table 14. Teachers' Self-Rating of Basic Technology Skills

	Can Do This Very Well or Can Teach Others How to Do This
Create and print documents	82%
Open, edit, and save documents	85%
Insert digital images into documents	68%
Locate files saved on your computer	77%
Locate files saved on a shared network	43%
Create a basic text only slide presentation	64%
Insert multimedia elements into a slide presentation	49%
Use software or web-based tools to create graphic organizers	35%
Use a mounted or portable projector	60%
Use a digital video camera	61%
Import and save video files from your camera to a computer	56%
Use digital video to create a movie	34%
Create and maintain Internet Bookmarks	61%
Download and save a PDF file from the Internet	64%
Use the Internet to locate content area resources	68%
Send email with attachments	80%
Open and save email attachments	80%

OUTCOMES

	Can Do This Very Well or Can Teach Others How to Do This
Access the History in your Internet browser	69%
Clear the History in your Internet browser	62%

Among the teachers who completed the survey, very few reported any regular use of various Web 2.0 tools. Thirty nine percent of teachers reported using streaming video in their classrooms "a number of times" or "regularly," but for the most part fewer than one-fifth of teachers are actively integrating Web 2.0 tools and resources into their classroom. As shown in Table 15, two-thirds or more of the respondents indicated that they did not know about certain tools or knew about them but had not used them. This level of awareness/use applied to online presentation tools such as Prezi (66%), courseware such as Moodle (69%), website creation tools such as Google Sites (71%), web content aggregators such as Google Reader (81%), multimedia content aggregators such as Museum Box (90%), online poster creation tools such as Glogster (82%), Google for Educators (67%) and online cloud storage such as Dropbox (70%).

While the data in Table 14 and Table 15 are representative of only a small number of teachers, they illustrate the importance of providing basic and ongoing technology-related professional development to ensure that technology is utilized beyond its basic productivity capabilities .

Table 15. Teachers' Average Use of Web 2.0 Tools

	Don't Know What This Is or Know but Have Never Used It	Have Used A Number of Times or Use Regularly
Accessing education-related blog sites	44%	17%
Using iTunes Apps	26%	53%
Using web-based graphic organizers	48%	16%
Video creation (e.g., Animoto)	62%	6%
Photo storage and organization (e.g., Flickr)	45%	25%
Document sharing (e.g., Google Docs)	43%	24%
Education-related social networking (e.g., Edmodo)	63%	16%
Online presentations (e.g., Prezi)	66%	14%
Courseware (e.g., Moodle)	69%	12%

	Don't Know What This Is or Know but Have Never Used It	Have Used A Number of Times or Use Regularly
Website creating (e.g., Google Sites)	71%	11%
Use a web content aggregator (e.g., Google Reader)	81%	9%
Streaming video (e.g., United Streaming, YouTube)	32%	39%
Multimedia content aggregator (e.g., Museum Box)	90%	5%
Online Posters (e.g., Glogster)	82%	6%
Google for Educators	67%	14%
Cloud Storage (e.g., Dropbox)	70%	15%

Teacher Feedback on Year 1 of Grant

Teachers from eight of the 16 projects that were funded in Year 1 completed an online survey designed to capture data on how teachers were using the grant-funded technology they received. The survey was administered online, via SurveyMonkey, in May 2012, and as discussed earlier in the report, it was administered only in districts that had gotten far enough along in their Year 1 implementation to warrant capturing teacher data. Across the eight districts (Churchill County, Humboldt County, Lincoln County, Lyon County, Pershing County, Storey County, Washoe County, and White Pine County), 122 teachers completed the survey.

Table 16. Respondents by District

	Response Percent	Response Count (N=122)
Churchill County	23%	28
Humboldt County	17%	21
Lincoln County	13%	16
Lyon County	16%	20
Pershing County	4%	5
Storey County	1%	1
Washoe County	19%	23

White Pine County	7%	8

Most of the teachers who responded to the survey (55%) are elementary teachers in self-contained classrooms. Twenty-one percent of the respondents are junior high/middle school teachers, with the remaining respondents teaching in high school (8%), a K-8 school (11%) or a combined junior/senior high school (5%)

Table 17. Grade Level of Respondents

	Response Percent	Response Count (N=122)
Elementary	55%	67
Junior High/Middle School	21%	26
High School	8%	10
K-8	11%	13
Junior High/High School	5%	6

Table 18. Subject Taught by Respondents

	Response Percent	Response Count (N=110)
English Language Arts	19%	21
Mathematics	10%	11
Social Studies	3%	3
Science	2%	2
Elementary (Self-Contained Classroom)	55%	50
Special Education	4%	4
Computers/Technology	4%	4
Performing Arts	3%	3
Other (Foreign Language, Preschool, ESL, Health, Agriculture, Resource Teacher)	6%	7

Evaluators asked teachers to identify the new technology to which they had access during the 2012-13 school year. Allowing for multiple responses, 50 percent of the teachers reported having a new computer, 36 percent of the teachers also had new student desktop or laptop computers in the classroom, 18 percent reported new student computers in a school lab and 15 percent reported having new mobile computer labs.

OUTCOMES

Table 19. New Technology to Which Teachers Had Access During 2011-12 School Year

	Response Percent	Response Count (N=119)
Teacher computer	50%	60
Student computers/laptops (classroom)	36%	43
Student computers/thin clients (lab)	18%	22
Mobile computer lab	15%	18
Tablet/iPad	24%	28
iPod	18%	21
Wireless connectivity	39%	47
Videoconferencing capability	3%	4
Electronic Whiteboard	13%	16

When asked about the various ways in which they were using the new technology, the majority of teachers (60%) indicated they were developing lesson plans or using the technology for productivity (49%). Just over half of the teachers (52%) reported using the technology for student projects and about one-third of the teachers reported using the grant-funded technology for CRT test preparation (33%), communicating with students (30%), student collaborative work (32%), student remediation (33%), use of digital content to supplement textbooks (30%), and streaming video (36%).

Table 20. Teachers' Applied Use of Grant-Funded Technology

	Response Percent	Response Count (N=120)
Productivity (e.g., attendance, grading)	49%	59
Lesson Planning	60%	72
Integrating Web 2.0 Tools	16%	19
Online Assessment	29%	35
Homework Submission	15%	18
CRT Test Preparation	33%	39
Communicating with Students	30%	36
Student Collaborative Work	32%	38
Student Projects	52%	62

OUTCOMES

	Response Percent	Response Count (N=120)
Student Remediation	33%	39
Student Credit Recovery	3%	4
Integration of iPod/Android Apps	11%	13
Use of Digital Content to Supplement Textbook Content	30%	36
Use of Digital Content to Replace Textbook Content	13%	15
Streaming Video	36%	43
Virtual Communication (e.g., videoconferencing)	4%	5

Evaluators asked teachers if they had participated in any technology and/or CCSS-related professional development during the 2011-12 school year. Nearly 80 percent of the teachers (N=97) indicated that they had participated in such training. The majority of those respondents (62%) reported that the training had been Professional Learning Community (PLC) meetings focused on the transition to CCSS. Forty-three percent of the teachers reported attending Regional Professional Development Program (RPDP) training on the CCSS. Very few teachers reported having training focused specifically on technology integration strategies aligned with CCSS for English Language Arts (20%) or mathematics (16%). About one-third of the respondents said they had participated in skills training on using the new equipment (30%) or software they received (33%).

Table 21. Professional Development Activities in which Teachers Participated

	Response Percent	Response Count (N=97)
Skills training on a new/upgraded hardware device	30%	29
Skills training on new software application(s)	33%	32
Skills training on Web 2.0 tools	12%	12
Technology integration strategies aligned with CCSS for mathematics	16%	15
Technology integration strategies aligned with CCSS for English Language Arts	20%	19
PLC meeting focused on transition to CCSS	62%	60
RPDP training on CCSS	43%	42
Other (please specify)	4%	4

OUTCOMES

Teachers' professional development experience included PLC meetings, RPDP training, district-provided technology training, and vendor-provided training. Though the delivery methods were varied, overall, teachers rated their professional development experiences very highly. In particular, 94 percent of teachers agreed or strongly agreed that participating in the technology training was a good use of their time and 90 percent said the same of their CCSS training. The majority of respondents felt that the training was relevant to their immediate needs/interests (88%), and that they learned skill or strategies that they could immediately put to use (85%).

Table 22. Teachers' Rating of Professional Development

	% Agree/ Strongly Agree	Response Count
Participating in the technology training was a good use of your time.	94%	85
Participating in the CCSS training was a good use of your time.	90%	91
The available training was relevant to your immediate technology integration needs/interests.	88%	83
You learned a technology skill/strategy that you could immediately put to use in your classroom.	85%	87
You had sufficient support in learning how to use the technology in your classroom/computer lab.	84%	91
The PD provided you with resources that will help you integrate technology into CCSS.	79%	84
The PD provided you with strategies for planning lessons that integrate technology into CCSS.	70%	81

Student Outcome Data

Evaluators did not collect a lot of student outcome data related to Year 1 implementation; what was collected will serve as baseline measures against which to compare Year 2 data. While five districts (Humboldt County, Lyon County, Nye County, Pershing County, and White Pine County) decided to use MAP assessment data as an outcome measure, evaluators were only able to obtain MAP data from Humboldt County and Pershing County in time for inclusion in this report. In the final summary report of the grant, data from spring 2012 and spring 2013 will be reported. Humboldt County also provided baseline student usage data on the A+ Learning system for spring 2012.

OUTCOMES

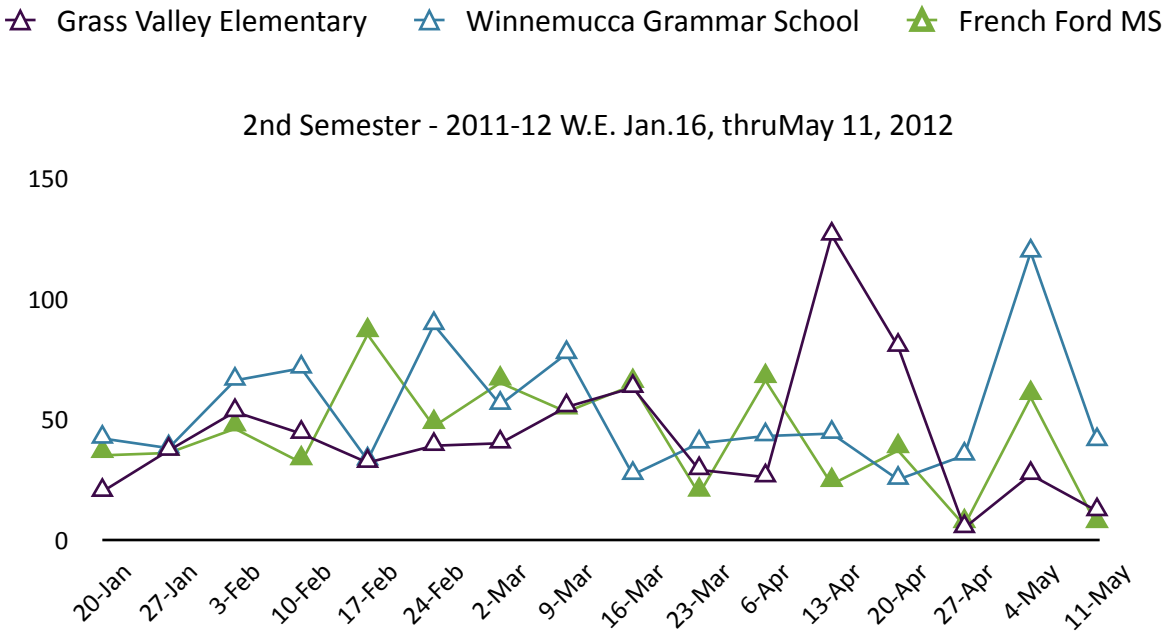
A+Learning

Humboldt County School District is using A+Learning usage data as one of its outcome measures for the grant. The data are only reported for the four schools in which grant-funded computers were installed. Baseline data on usage covering the weeks from January 16, 2012 to May 11, 2012 were provided to Wexford evaluators. As shown in Table 23, the average number of minutes that students are using the remediation program is less than 10 minutes per week at three of the schools and almost 40 minutes per week at one school. These data are presented without benefit of context because the reports were generated during summer 2012. Evaluators will gather additional data in Year 2 to frame the usage data within the context of how and when students typically have access to A+ Learning.

Table 23. Average A+Learning Usage by School Site

School	Students	Total Hrs	Average Hours/ Week	Average Minutes/Week
Winnemucca Grammar School	346	688	0.1	7
Grass Valley Elementary	337	846	0.2	9
French Ford Middle School	521	679	0.1	5
Paradise Valley Elementary	33	335	0.6	38

Figure 2. Humboldt County A+ Learning Usage for Spring 2012



OUTCOMES

MAP Assessment Data

Measures of Academic Progress are computer-adaptive, periodic assessments administered by the Northwest Evaluation Association that allow parents, teachers, school administrators, and districts to have individualized snapshots of students' academic level. The data shown in Tables 24-26 are the percentage of student growth by grade level for each school as well as the percent of students at each grade level who are proficient in reading and mathematics. The comparative analysis for the final report will indicate whether the growth and proficiency indicators are significantly higher in spring 2013 than spring 2012.

Table 24. Humboldt County Spring 2012 Percentage Growth and Percent Proficient in Reading by Grade Level

READING						
Grade	**Grass Valley Elementary**		**Winnemucca Grammar**		**French Ford MS**	
	% Growth	% Proficient	% Growth	% Proficient	% Growth	% Proficient
1	80.6%	-	63.6%	-	-	-
2	43.0%	51.1%	16.7%	45.0%	-	-
3	60.6%	63.4%	39.2%	64.2%	-	-
4	39.7%	70.7%	65.6%	74.7%	-	-
5	-	-	-	-	58.2%	64.3%
6	-	-	-	-	38.6%	64.7%

Table 25. Humboldt County Spring 2012 Percentage Growth and Percent Proficient in Mathematics by Grade Level

MATHEMATICS						
Grade	**Grass Valley Elementary**		**Winnemucca Grammar**		**French Ford MS**	
	% Growth	% Proficient	% Growth	% Proficient	% Growth	% Proficient
1	63.3%	-	40.7%	-	-	-
2	20.0%	57.3%	13.4%	59.3%	-	-
3	66.2%	69.5%	56.9%	76.1%	-	-
4	38.4%	70.7%	70.5%	74.7%	-	-
5	-	-	-	-	58.7%	67.2%
6	-	-	-	-	27.6%	66.0%

OUTCOMES

Table 26. Pershing County Lovelock Elementary School Spring 2012 Percentage Growth and Percent Proficient in Reading and Mathematics by Grade Level

	READING		MATHEMATICS	
Grade	% Growth	% Proficient	% Growth	% Proficient
1	45.7%	-	51.1%	-
2	48.6%	70.0%	44.4%	60.0%
3	35.9%	50.0%	59.0%	60.0%
4	67.4%	64.4%	58.1%	60.0%
5	53.8%	37.0%	40.4%	44.4%

District Plans to Document Outcomes

Each of the districts determined how it plans to document outcomes for their grant-funded projects. Plans include quantitative and qualitative data gathering, some of which will be led directly by the district and some that will be gathered through data collection instruments (i.e., surveys, interview protocol, observation protocol) developed by Wexford. To the extent that districts make the data available, Wexford will analyze all student achievement data to determine if there are statistically significant differences between 2011-12 baseline outcomes and 2012-13 implementation year outcomes. The following summaries provide an overview of how each district will document outcomes.

Carson City

Carson City School District will document the number of students who access the computer labs and how they are using the computers in the lab, including reports of the number of students at each school who use the new computers for online assessments as well as for remediation and credit recovery. During the 2012-13 school year, Wexford evaluators will work with the project director to coordinate collection and reporting of these data.

Churchill County

In addition to documenting the number of students who use the thin clients for online assessment, Churchill County School District will work with Wexford evaluators to survey teachers and students about the frequency with which the thin clients are used and for what instructional purpose. The district's network administrator will also provide data usage reports that triangulate teachers' and students' self-report data.

OUTCOMES

Clark County

CCSD will measure project impact in the following ways: (1) number of BLAST modules developed over the 2-year grant period; (2) number of teachers who complete the modules; (3) number of teachers who access the modules multiple times; (4) teacher satisfaction with BLAST modules; (5) feedback from instructional coaches on how the modules are used; (6) feedback from a randomly selected group of teachers who complete TeacherLine and BLAST modules to document how they have implemented what they learned.

Douglas County

The district's IT department has completed the "before" heat map of the wireless accessibility in each school. The "after" heat map will be generated after the second round of WAP installation is completed in Year 2. The district will also generate reports that show the "before and after" network traffic level based on its upgrade of network switches.

Elko County: 1:1 iPad

The district would like to compare pre/post performance measures of students in classes using iPads with those of students in classes not using ipads. The Project Director is considering a comparison of data that include student grades, teacher observations, and outcomes on district and state administered achievement tests. Wexford evaluators will work with the Project Director to finalize plans for data collection and analysis.

Elko County: eLearning for Educators (e4e)

The Project Director will provide Wexford with enrollment and completion data as well as the results of end-of-course surveys that all teachers are required to complete. A sample of the end-of-course survey data indicates that teachers are highly satisfied with the course offerings, including content, format, value, and relevance to their immediate teaching needs.

Esmeralda County

Wexford evaluators have proposed surveying teachers during the 2012-13 school year to gather data on the extent to which the network upgrade and increased bandwidth has affected their instructional use of technology.

OUTCOMES

Humboldt County

The District will measure outcomes in the following ways: (1) compare results of its spring 2012 MAP data to spring 2013 MAP data; (2) report principals' eWalk data on teachers' technology integration; and (3) report A+ Learning usage data for each school. Wexford evaluators will interview the two Tech Team leaders at each school to document the type and frequency of support they provide to teaches at their school. Per the Project Director's request, teachers will complete a Wexford-developed survey in the fall to gather baseline data on teachers' technology skills and awareness and will complete the same survey in spring 2013. Teachers will also complete a "technology use" survey in spring 2013.

Lander County

Wexford evaluators have proposed surveying teachers during the 2012-13 school year to gather data on the extent to which the network upgrade and increased bandwidth has affected their instructional use of technology.

Lincoln County

At the request of the Project Director, in spring 2012 the 5th-12th grade teachers completed a technology skills and awareness survey administered by Wexford. Teachers also completed a technology use baseline survey in spring 2012; Wexford will administer the follow up to these two surveys in spring 2013. The district will also document the monthly "time and effort" of the two Technology Integration Specialists and the Computer Technician.

Lyon County

The district will measure the impact of its 1:1 project by administering surveys to teachers, students and parents; reporting iObservation data from principal walkthroughs; reporting SchoolNet student achievement data for the 2012-13 school year; and comparing student outcomes on MAP assessments, with spring 2012 serving as the baseline against which to compare spring 2013 data.

OUTCOMES

Mineral County

Wexford evaluators will administer a technology use survey to teachers during the 2012-13 school year. The Project Director will work with schools to develop procedures for documenting teacher and student use of the computer labs. The district will also examine outcomes of MAP data for elementary students, using spring 2012 data as a baseline against which to compare spring 2013 data.

Nye County

The district will document its cross-site professional development schedule facilitated by Adobe Connect. These data will include dates, topics, and attendance. Wexford evaluators will interview participating teachers to gather feedback on their virtual PD experience; evaluators will also observe at least one Adobe Connect PD sessions. Data will be gathered on the extent to which the SMART Boards are utilized for instructional purposes when they are not being sued for professional development. The district is also interested in tracking the use of Adobe Connect by consultants that will be hired to work with schools in need of improvement.

Pershing County

The district intends for the use of iPods in its 1st and 2nd grade classrooms to be a consistently integral part of students' instructional experience. As such, the district will look at the outcomes of MAP assessment data. Spring 2012 1st and 2nd grade data will serve as the baseline against which to compare spring 2013 data.

Storey County

The district will compare 5th grade writing assessment data as an outcome measure. Spring 2012 data will serve as the baseline. Wexford evaluators will conduct a site visit to document students' use of the devices and will also interview and survey teachers.

OUTCOMES

Washoe County

The district will document use of the point-to-point videoconferencing system to provide district-wide PD to professional learning communities on early release Wednesdays. These data will include dates, topics, number of teachers in attendance, and length of the broadcast. Wexford evaluators will conduct classroom observations of teachers who have completed "advanced" Activboard training, with a representative sample of teachers from elementary, middle school, and high school. Evaluators will also conduct observations and survey teachers and students who are participating in the iPad pilot project.

White Pine County

The district will document use of the Mimio system in each building. Data will include PD dates, session length, number of teachers in attendance, and topic. The district will also compare spring 2012 and spring 2013 MAP assessment data for all grade levels. Wexford evaluators will administer a survey to gather teachers' feedback related to participating in virtual PD.